ELSEVIER

Journal of Alloys and Compounds 258 (1997) 179

Journal of ALLOYS AND COMPOUNDS

# Author Index of Volume 258

Aoki, K., 87
Aston, M.G., 97

Bouchilloux, P., 61
Buschow, K.H.J., 1

Chen, Z., 30
Choi, Y.S., 155
Claeyssen, F., 61

de Boer, F.R., 1
Dhilsha, K.R., 53
Du, T., 20

Eda, H., 107
Engdahl, G., 79

Fromm, E., 7
Fujimori, H., 149

Greenough, R.D., 97, 101, 114, 118

Han, S.H., 155
Hardee, H.C., 83
Hardee, N.L., 83
Hongping, Z., 49
Houqing, Z., 49

Igarashi, M., 87

Jenner, A.G., 138
Jenner, A.G.I., 97, 101
Ji, S., 39
Jia, K., 39
Jianguo, L., 49

Kamata, H., 87
Kaneko, H., 42, 143, 169
Kim, S.R., 163
Kim, H.J., 155
Kishore, S., 17
Koh, T., 74
Kondo, K., 56
Kvarnsjö, L., 123

Le Letty, R., 61
Lee, S.R., 155
Lhermet, N., 61
Li, J., 39
Lim, S.H., 155, 163
Lin, M., 30
Liu, S., 39
Ludwig, A., 133

Markandeyulu, G., 17, 53
Martin, M., 7

McMasters, O.D., 24
Mei, W., 34
Mencik, J., 133
Metheringham, W.J., 97
Mori, T., 93, 107

Nold, E., 133

Ohmata, K., 74
Okane, T., 34

Pollard, D., 118
Prajapati, K., 97

Quandt, E., 126, 133

Rama Rao, K.V.S., 17, 53
Rathore, A.R., 93
Rathore, A., 107

Schulze, M.P., 118
Shi, Z., 30
Shima, T., 149
Smith, R.J.E., 101
Snelling, H.V., 138
Snodgrass, J.D., 24
Stillesjö, F., 79
Stone, L.A., 138

Subrahmanyeswara Rao, B.V.P., 53

Uchida, H., 42, 143, 169, 174
Uchida, H.H., 174
Umeda, T., 34

Wada, M., 42, 143, 169, 174
Wakiwaka, H., 87
Wang, X., 30
Wharton, A.D., 114
Wilkinson, A.J., 101

Xiurong, W., 49

Yamada, H., 87
Yamamoto, Y., 107
Yanhong, X., 49
Yokoyama, H., 149
Yoshikawa, T., 87
Yoshizumi, M., 34

Zaike, M., 74
Zhang, H., 20
Zhang, Y., 30
Zhao, X., 39
Zhu, H., 20

Elsevier Science S.A.

ELSEVIER

Journal of Alloys and Compounds 258 (1997) 181–183

Journal of ALLOYS AND COMPOUNDS

# Subject Index of Volume 258

Acoustic dipole transducer
applications of Terfenol-D in China 49
Actuator
applications of Terfenol-D in China 49
dynamic behaviour of Terfenol-D 56
actuators, transducers and motors based on giant magnetostrictive materials 61
controlled high power actuation utilising Terfenol-D 97
Actuators
estimation of the intrinsic magnetomechanical response of magnetostrictive actuators by dynamic simulations 79
Amorphous structure
magnetostriction of rapidly quenched Sm–Fe–B alloys 163
Anisotropy
hydrogen-induced anisotropy in $Dy_{0.73}Tb_{0.27}Fe_{1.5}Co_{0.5}$ 17
Applications
design and fabrication of a low frequency giant magnetostrictive transducer 53
Assessment of magnetostrictions
effects of the compositional change and the contamination on the magnetic and magnetostrictive characteristics of $Tb_xDy_{1-x}Fe_2$ ($x = 0$–1) films 174

B addition
magnetostriction and magnetic properties of Sm–Fe–B and Tb–Fe–B thin films and multilayers 149
the magnetic properties of Tb-Fe-(B) thin films fabricated by rf magnetron sputtering 155
magnetostriction of rapidly quenched Sm–Fe–B alloys 163

Characterisation
methods and techniques to characterise Terfenol-D 114
Circumferential magnetic field
a study on torque induction in the giant magnetostrictive material 93
Coercive force
the magnetic properties of Tb-Fe-(B) thin films fabricated by rf magnetron sputtering 155
Crystalline electric field
hydrogen-induced anisotropy in $Dy_{0.73}Tb_{0.27}Fe_{1.5}Co_{0.5}$ 17
Crystal growth
crystal growth of giant magnetostrictive Tb–Dy–Fe alloy 34
Cyclic hydriding–dehydriding reaction
effect of the pulverization processes of the magnetostrictive characteristics of giant magnetostrictive $Tb_{0.3}Dy_{0.7}Fe_2$ thin film 42

Directional solidification
directionally solidified $Tb_xDy_{1-x}(M_yFe_{1-y})_{1.9}$ giant magnetostrictive materials and their applications in transducer 30

Disproportionation
effect of the pulverization processes of the magnetostrictive characteristics of giant magnetostrictive $Tb_{0.3}Dy_{0.7}Fe_2$ thin film 42
Domain walls
effect of the substrate temperature on the microstructure and magnetostrictive characteristics of the $Tb_{0.3}Dy_{0.7}Fe_2$ film 143
Dynamic simulations
estimation of the intrinsic magnetomechanical response of magnetostrictive actuators by dynamic simulations 79

Elastic wave
dynamic behaviour of Terfenol-D 56
Excimer
magnetostrictive thin films by laser ablation deposition 138
Experiment
actuators, transducers and motors based on giant magnetostrictive materials 61

Fretting machines
magnetostrictive-driven fretting machines for interconnection research 83
Friction force
a three-link arm type vibration control device using magnetostrictive actuators 74

Giant magnetostriction
effect of the pulverization processes of the magnetostrictive characteristics of giant magnetostrictive $Tb_{0.3}Dy_{0.7}Fe_2$ thin film 42
effect of the substrate temperature on the microstructure and magnetostrictive characteristics of the $Tb_{0.3}Dy_{0.7}Fe_2$ film 143
magnetostriction and magnetic properties of Sm–Fe–B and Tb–Fe–B thin films and multilayers 149
the magnetic properties of Tb-Fe-(B) thin films fabricated by rf magnetron sputtering 155
magnetostriction of rapidly quenched Sm–Fe–B alloys 163
effect of annealing treatment of the $Tb_{0.3}Dy_{0.7}Fe_2$ thin films on the magnetic and magnetostrictive characteristics 169
effects of the compositional change and the contamination on the magnetic and magnetostrictive characteristics of $Tb_xDy_{1-x}Fe_2$ ($x = 0$–1) films 174
Giant magnetostrictive actuator
a three-link arm type vibration control device using magnetostrictive actuators 74
Giant magnetostrictive material
effect of V on microstructure and magnetic properties of polycrystal Tb–Dy–Fe alloy 20

Elsevier Science S.A.

three-dimensional magnetostrictive vibration sensor: development, analysis, and applications 107
Giant magnetostrictive materials
directionally solidified $Tb_xDy_{1-x}(M_yFe_{1-y})_{1.9}$ giant magnetostrictive materials and their applications in transducer 30

High power
controlled high power actuation utilising Terfenol-D 97
Hydrogen–decomposition–desorption–recombination (HDDR)
effect of the pulverization processes of the magnetostrictive characteristics of giant magnetostrictive $Tb_{0.3}Dy_{0.7}Fe_2$ thin film 42

3d-4f Interaction
influence of the rare-earth transition-metal interaction on the room temperature magnetostriction 1
Interconnections
magnetostrictive-driven fretting machines for interconnection research 83
Intermetallic compound
crystal growth of giant magnetostrictive Tb–Dy–Fe alloy 34

Kinetics
low-temperature oxidation of metal surfaces 7

Laser ablation
magnetostrictive thin films by laser ablation deposition 138
Laves phase compound
magnetic properties and thermal stability of $PrFe_2$ compound 39
Laves phase compounds
hydrogen-induced anisotropy in $Dy_{0.73}Tb_{0.27}Fe_{1.5}Co_{0.5}$ 17
Learning
three-dimensional magnetostrictive vibration sensor: development, analysis, and applications 107
Low-temperature oxidation
low-temperature oxidation of metal surfaces 7

Magnetic domains
effect of the substrate temperature on the microstructure and magnetostrictive characteristics of the $Tb_{0.3}Dy_{0.7}Fe_2$ film 143
Magnetic softness
magnetostriction and magnetic properties of Sm–Fe–B and Tb–Fe–B thin films and multilayers 149
the magnetic properties of Tb-Fe-(B) thin films fabricated by rf magnetron sputtering 155
Magnetons
a study on torque induction in the giant magnetostrictive material 93
Magnetostriction
influence of the rare-earth transition-metal interaction on the room temperature magnetostriction 1
optimized TERFENOL-D manufacturing processes 24
magnetic properties and thermal stability of $PrFe_2$ compound 39
dynamic behaviour of Terfenol-D 56
actuators, transducers and motors based on giant magnetostrictive materials 61
estimation of the intrinsic magnetomechanical response of magnetostrictive actuators by dynamic simulations 79
Magnetostrictive
crystal growth of giant magnetostrictive Tb–Dy–Fe alloy 34
controlled high power actuation utilising Terfenol-D 97
Magnetostrictive materials
giant magnetostrictive TbFe/Fe multilayers 133
Magnetostrictive thin film
effect of the substrate temperature on the microstructure and magnetostrictive characteristics of the $Tb_{0.3}Dy_{0.7}Fe_2$ film 143
effect of annealing treatment of the $Tb_{0.3}Dy_{0.7}Fe_2$ thin films on the magnetic and magnetostrictive characteristics 169
effects of the compositional change and the contamination on the magnetic and magnetostrictive characteristics of $Tb_xDy_{1-x}Fe_2$ ($x = 0$–1) films 174
Magnetostrictive underwater transducers
design and fabrication of a low frequency giant magnetostrictive transducer 53
Manufacturing
optimized TERFENOL-D manufacturing processes 24
Metals
low-temperature oxidation of metal surfaces 7
Mine-sweeping
underwater acoustic transducers based on Terfenol-D 123
Model calculations
low-temperature oxidation of metal surfaces 7
Modelling
actuators, transducers and motors based on giant magnetostrictive materials 61
methods and techniques to characterise Terfenol-D 114
Mössbauer effect
effect of V on microstructure and magnetic properties of polycrystal Tb–Dy–Fe alloy 20
Motor
actuators, transducers and motors based on giant magnetostrictive materials 61
Multilayers
giant magnetostrictive TbFe/Fe multilayers 133
magnetostriction and magnetic properties of Sm–Fe–B and Tb–Fe–B thin films and multilayers 149

Nanocrystal
effect of annealing treatment of the $Tb_{0.3}Dy_{0.7}Fe_2$ thin films on the magnetic and magnetostrictive characteristics 169
effects of the compositional change and the contamination on the magnetic and magnetostrictive characteristics of $Tb_xDy_{1-x}Fe_2$ ($x = 0$–1) films 174
Nanocrystalline film
effect of annealing treatment of the $Tb_{0.3}Dy_{0.7}Fe_2$ thin films on the magnetic and magnetostrictive characteristics 169
Neural network
three-dimensional magnetostrictive vibration sensor: development, analysis, and applications 107
Non-resonant
controlled high power actuation utilising Terfenol-D 97

Oxidation
effects of the compositional change and the contamination on the magnetic and magnetostrictive characteristics of $Tb_xDy_{1-x}Fe_2$ ($x = 0$–1) films 174

Powder metallurgy
a study on torque induction in the giant magnetostrictive material 93
$PrFe_2$
magnetic properties and thermal stability of $PrFe_2$ compound 39

Processing
optimized TERFENOL-D manufacturing processes 24
Pulsed laser deposition
magnetostrictive thin films by laser ablation deposition 138
Pulverization process
effect of the pulverization processes of the magnetostrictive characteristics of giant magnetostrictive $Tb_{0.3}Dy_{0.7}Fe_2$ thin film 42

Rapid quenching
magnetostriction of rapidly quenched Sm–Fe–B alloys 163
Rare earth alloy
effect of V on microstructure and magnetic properties of polycrystal Tb–Dy–Fe alloy 20
Rare earth element
crystal growth of giant magnetostrictive Tb–Dy–Fe alloy 34
Rare-earth transition-metal compounds
influence of the rare-earth transition-metal interaction on the room temperature magnetostriction 1
Repeatability
optimized TERFENOL-D manufacturing processes 24
Response
dynamic behaviour of Terfenol-D 56

Saturation magnetization
the magnetic properties of Tb-Fe-(B) thin films fabricated by rf magnetron sputtering 155
Sensor
three-dimensional magnetostrictive vibration sensor: development, analysis, and applications 107
Simulation
underwater acoustic transducers based on Terfenol-D 123
Sm–Fe thin films
magnetostriction and magnetic properties of Sm–Fe–B and Tb–Fe–B thin films and multilayers 149
$SmFe_2$ compound
magnetostriction of rapidly quenched Sm–Fe–B alloys 163
Spin-flip metamagnetism
hydrogen-induced anisotropy in $Dy_{0.73}Tb_{0.27}Fe_{1.5}Co_{0.5}$ 17
Sputtering
the magnetic properties of Tb-Fe-(B) thin films fabricated by rf magnetron sputtering 155
Standards
methods and techniques to characterise Terfenol-D 114

$Tb_{0.3}Dy_{0.7}Fe_2$
effect of the substrate temperature on the microstructure and magnetostrictive characteristics of the $Tb_{0.3}Dy_{0.7}Fe_2$ film 143
effect of annealing treatment of the $Tb_{0.3}Dy_{0.7}Fe_2$ thin films on the magnetic and magnetostrictive characteristics 169
Tb–Fe thin films
magnetostriction and magnetic properties of Sm–Fe–B and Tb–Fe–B thin films and multilayers 149
Tb–Fe thin films
the magnetic properties of Tb-Fe-(B) thin films fabricated by rf magnetron sputtering 155
TEA $CO_2$
magnetostrictive thin films by laser ablation deposition 138
Terfenol
methods and techniques to characterise Terfenol-D 114
Terfenol-D
underwater acoustic transducers based on Terfenol-D 123
Terfenol-D underwater acoustic transducer
applications of Terfenol-D in China 49
Thin film
magnetostrictive thin films by laser ablation deposition 138
Thin films
giant magnetostrictive TbFe/Fe multilayers 133
Three-link arm
a three-link arm type vibration control device using magnetostrictive actuators 74
magnetostrictive-driven fretting machines for interconnection research 83
TERFENOL-D
optimized TERFENOL-D manufacturing processes 24
Thermal stability
magnetic properties and thermal stability of $PrFe_2$ compound 39
Transducer
directionally solidified $Tb_xDy_{1-x}(M_yFe_{1-y})_{1.9}$ giant magnetostrictive materials and their applications in transducer 30
actuators, transducers and motors based on giant magnetostrictive materials 61
underwater acoustic transducers based on Terfenol-D 123
Twinning
crystal growth of giant magnetostrictive Tb–Dy–Fe alloy 34

Vibration control device
a three-link arm type vibration control device using magnetostrictive actuators 74
Villari effect
three-dimensional magnetostrictive vibration sensor: development, analysis, and applications 107